



## Western Meadowlark (*Sturnella neglecta*)

**Conservation Status**— The western meadowlark is not designated as Sensitive by ISSSSP but populations in Oregon are designated as Oregon Conservation Strategy species (ODFW 2006). The western meadowlark is also the State Bird of Oregon. Limiting factors are reported to be: declining prairie habitat quality and nest failure due to land management practices (ODFW 2006). According to USGS Breeding Bird Survey trend data, the abundance index of western meadowlarks in Oregon decreased 1.01% per year between 1966-2008 (Sauer et al. 2008).

**Ecology**— Seventy years ago, the western meadowlark was reported to be the most widely distributed resident bird in Oregon (Gabrielson and Jewett 1940). The species remains common across much of the Great Basin province in eastern Oregon; populations are scattered among valleys in the western portion of the state (Altman 2003). The western meadowlark is rare or uncommon in most of the Willamette Valley, but locally more abundant near Coburg Hills and Fern Ridge Reservoir in Lane County (Altman 2003). The species is more numerous in winter as individuals migrate to the Willamette Valley from Canada and possibly eastern Oregon (Altman 2003).

Western meadowlarks are most closely associated with native prairie communities, fallow fields, and pastures; cultivated grass fields and hayfields offer marginal habitat in the Willamette Valley (Altman 1999; Davis and Lanyon 2008). Optimum breeding habitats were lightly grazed pastures and fallow fields with grass height 1-3 ft (Altman 1999). The density of grass/forb cover has been shown to affect habitat use by meadowlarks in other regions (Davis and Lanyon 2008), but the preferred density of ground cover vegetation has not been reported from western Oregon. Western meadowlarks avoid areas dominated by woody vegetation (Davis 2004, reported by Davis and Lanyon 2008). Abundance is also negatively affected by urbanization (Bock et al. 1999). Singing perches (e.g. fence posts, trees, large rocks) are reported to be essential habitat elements (Altman 2003).

Diet is composed mostly of invertebrates (e.g., beetles, weevils, wireworms) during spring; winter diet is mostly seeds (Davis and Lanyon 2008).

In Oregon, nesting begins in April and occurs through July (Gabrielson and Jewett 1940). Two clutches may be produced under good conditions (Altman 1999; reported by Altman 2003). Nests are constructed on the ground in tall grass. Territory size in the Willamette Valley averages 14.3 ac ([5.8 ha], range 4.8-35 ac [1.9-14.2 ha]); territories are dominated by grass cover types, although intensively managed grass seed fields are not often used (Altman 2003). Females show a strong tendency to return to the previous years' territory (Davis and Lanyon 2008).

**Habitat Management/Restoration**— Although habitat relationships of the western meadowlark have not been thoroughly investigated in western Oregon, research on the species from other regions and observational data on habitat use from the Willamette Valley provides some guidance for planning restoration activities. Habitat management areas that restore grassland plant communities with appropriate vegetation structure should benefit western meadowlarks. However, our literature review found no information from native prairie restoration projects in western Oregon to confirm whether meadowlarks demonstrate a positive response to such efforts. Land management activities and human disturbance should be minimized in occupied territories during breeding season to avoid causing adults to abandon nests.

Management areas should be large enough to encompass multiple meadowlark territories. Davis and Lanyon (2008) suggest that woodland edges be minimized in habitat management areas for western meadowlarks. Observational data suggest that meadowlarks avoid breeding in landscapes dominated by cultivated grass seed fields (Altman 1999); habitat restoration planners should locate meadowlark management areas in landscapes that as include as few grass seed fields as practical.

**Non-Habitat Limiting Factors**— Predation was reported as the most common cause of nesting failure in a Manitoba study (Davis and Sealy 200). Nest predators include: raccoons, ground squirrels, snakes, cats, and canids (Renfrew and Ribic 2003); adult meadowlarks are hunted by numerous species of raptors (Davis and Lanyon 2008). In urban areas and agricultural landscapes of the Willamette Valley, domestic cats are probably an important predator of meadowlarks (Altman 2003).

Agricultural practices such as tilling, spraying, mowing are reported to cause direct mortality of eggs and nestlings; however meadowlark survival appears unaffected by moderate levels of grazing (Davis and Lanyon 2008). Human activity within meadowlark territories may cause adults to abandon nests (Davis and Lanyon 2008).

#### **Literature Cited**—

Altman, B. 1999. Status and conservation of grassland birds in the Willamette Valley. Unpublished report. Oregon Department of Fish and Wildlife. Salem, OR.

Altman, B. 2003. Western meadowlark (*Sturnella neglecta*). Pp 580-582 *In*, D. B. Marshall, M.G. Hunter, and A.L. Contreras. 2003. Birds of Oregon: A General Reference. Oregon State University Press, Corvallis, OR.

Bock, C. E., J. H. Bock, and B. C. Bennett. 1999. Songbird abundance in grasslands at a suburban interface on the Colorado High Plains. *Studies in Avian Biology* 19:131-136.

Davis, S. K. and S. G. Sealy. 2000. Cowbird parasitism and nest predation in fragmented grasslands of southwestern Manitoba. Pages 220-228 *in* Ecology and Management of Cowbirds and Their Hosts. (Smith, J. N. M., T. L. Cook, S. I. Rothstein, S. K. Robinson, and S. G. Sealy, Eds.) Univ. of Texas Press, Austin

- Davis, S. K. 2004. Area sensitivity in grassland passerines: Effects of patch size, patch shape, and vegetation structure on bird abundance and occurrence in southern Saskatchewan. *Auk* 121(4):1130-1145.
- Davis, Stephen K. and Wesley E. Lanyon. 2008. Western Meadowlark (*Sturnella neglecta*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online:  
<http://bna.birds.cornell.edu.proxy.library.oregonstate.edu/bna/species/104>doi:10.2173/bna.104
- Gabrielson, I.N. and S.G. Jewett. 1940. Birds of Oregon. Oregon State College, Corvallis, OR. [Reprinted in 1970 under the title Birds of the Pacific Northwest by Dover Publications].
- ODFW [Oregon Department of Fish and Wildlife]. 2006. Oregon conservation strategy. Oregon Department of Fish and Wildlife. Salem, OR.
- Renfrew, R. B. and C. A. Ribic. 2003. Grassland passerine nest predators near pasture edges identified on videotape. *Auk* 120(2):371-383.
- Sauer, J. R., J. E. Hines, and J. Fallon. 2008. *The North American Breeding Bird Survey, Results and Analysis 1966 - 2007. Version 5.15.2008.* USGS Patuxent Wildlife Research Center, Laurel, MD
- USFWS [U.S. Fish and Wildlife Service]. 2009. Federally listed, proposed, candidate, delisted, and species of concern by taxonomic group. Web application. Accessed 03/01/09 at <http://www.fws.gov/oregonfwo/Species/Data/default.asp>. USFWS Oregon State Office, Portland, OR.



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